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Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
		Application No.	
		09/779,023	DUMOULIN, BENOIT
•	Office Action Summary	Examiner	Art Unit
		Tim Lao	2655
Period fo	The MAILING DATE of this communication r Reply	appears on the cover sheet w	th the correspondence address
THE ! - Exter after - If the - If NO - Failur Any r	DRTENED STATUTORY PERIOD FOR RIMAILING DATE OF THIS COMMUNICATION  Isions of time may be available under the provisions of 37 CF  SIX (6) MONTHS from the mailing date of this communication  period for reply specified above is less than thirty (30) days, period for reply is specified above, the maximum statutory per to reply within the set or extended period for reply will, by seply received by the Office later than three months after the period for reply within the set or extended period for reply will, by seply received by the Office later than three months after the period for terms adjustment. See 37 CFR 1.704(b).	ON. FR 1.136(a). In no event, however, may a r n. a reply within the statutory minimum of thin eriod will apply and will expire SIX (6) MON statute, cause the application to become AE	eply be timely filed y (30) days will be considered timely. ITHS from the mailing date of this communication. ANDONED (35 U.S.C. § 133).
Status			
1) 又	Responsive to communication(s) filed on	07 February 2001.	
·	<u> </u>	This action is non-final.	
,	Since this application is in condition for all closed in accordance with the practice und		
Dispositi	on of Claims		
5)□ 6)⊠ 7)□	Claim(s) <u>1-43</u> is/are pending in the applicated 4a) Of the above claim(s) is/are with Claim(s) is/are allowed.  Claim(s) <u>1-43</u> is/are rejected.  Claim(s) is/are objected to.  Claim(s) are subject to restriction a	ndrawn from consideration.	
Applicati	on Papers		
16)	The specification is objected to by the Exact The drawing(s) filed on The Sare: a) Applicant may not request that any objection to Replacement drawing sheet(s) including the country the oath or declaration is objected to by the same specific control of the same specific contro	accepted or b) objected to othe drawing(s) be held in abeyar orrection is required if the drawing	nce. See 37 CFR 1.85(a). (s) is objected to. See 37 CFR 1.121(d).
Priority (	ınder 35 U.S.C. § 119		
a)	Acknowledgment is made of a claim for for All b) Some * c) None of:  1. Certified copies of the priority docur 2. Certified copies of the priority docur 3. Copies of the certified copies of the application from the International Besee the attached detailed Office action for a	ments have been received. ments have been received in A priority documents have beer ureau (PCT Rule 17.2(a)).	Application No I received in this National Stage
Attachmen	nt(s)	_	
2) Notice 3) Information Paper	ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTO-94 mation Disclosure Statement(s) (PTO-1449 or PTO/S er No(s)/Mail Date  Trademark Office	8) Paper No	Summary (PTO-413) s)/Mail Date Informal Patent Application (PTO-152)

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#### **DETAILED ACTION**

### Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-11, 13-18, 20-28, 30-35, and 37-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (U.S. Patent Publication 2002/0087316, hereinafter "Lee").

### Claim(s)

#### Lee discloses:

1

A method of identifying one or more items from amongst a plurality of items in response to a spoken utterance, the method comprising:

using an automatic speech recognizer (Fig.1: **34**) to recognize the utterance (Fig.1: **32**), including generating a plurality of hypotheses (e.g., two of N-best hypotheses: "give me hottest golf book from Amazon", "give them hottest gulf from Amazon", p.2, ¶ 0018; Fig.3: **36**) for the utterance; and

generating a query element (e.g., a request "give me hottest golf book from Amazon": p.1, ¶ 0014; Fig.4: **80**) based on the utterance, for use in identifying one or more items (e.g., golf book) from amongst the plurality of items (e.g., books from Amazon), such that the query element includes values (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon": p.2, ¶ 0018) representing two or more hypotheses of the plurality of hypotheses (N-best hypotheses).

{The query element, representing a request, generates values, representing the two

	hypotheses.}
Claim(s)	Lee discloses:
	A method as recited in claim 1, wherein the query element (e.g., the request) includes
	values (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon")
	representing a best hypothesis (e.g., "give me hottest golf book from Amazon") and a
	hypothesis (e.g., "give them hottest gulf from Amazon") other than the best hypothesis from
	the plurality of hypotheses.
	Since the meanings of 'hottest' and 'golf' are constrained to be POPULARITY and BOOK
	respectively, the best hypothesis is "give me hottest golf book from Amazon". (p.2, ¶ 0021,
	II.14-21; p.3, ¶ 0023; see Fig.4 & 5)}
Claim(s)	Lee discloses:
3	
	A method as recited in claim 1, wherein the query element includes values (e.g., "give
	me hottest golf book from Amazon", "give them hottest gulf from Amazon") representing all of
	the plurality of hypotheses (e.g., "give me hottest golf book from Amazon", "give them hottest
	gulf from Amazon"). (p.2, ¶ 0018)
Claim(s)	Lee discloses:
4	
	A method as recited in claim 1, wherein the query element is a vector.
	{The recognition result 36 is inherently represented as a vector in order for it to be weighted.
	(p.2, ¶ 0017, II. 9-12)}
Claim(s)	Lee discloses:
5	
	A method as recited in claim 1, wherein each of the hypotheses includes one or more
	words (e.g., 'hottest', 'Amazon'), wherein the query element includes a set of values (e.g.,
	"give me hottest golf book from Amazon", "give them hottest gulf from Amazon": p.2, ¶ 0018),
	each value corresponding to one of said words, and wherein the method further comprises
	weighting each of the values in the query element based on a confidence measure (e.g.,
	recognition importance: p.2, ¶ 0017) of the hypothesis that includes the word corresponding
	to said value.

Claim(s)	Lee discloses:
6	
	A method as recited in claim 5, wherein the confidence measure of each hypothesis
	is based on a rank (e.g., the best hypothesis "give me hottest golf book from Amazon" and
	the second best hypothesis "give them hottest gulf from Amazon") of said hypothesis among
	the plurality of hypotheses. (p.2, ¶ 0021, II.14-21; p.3, ¶ 0023; see Fig.4 & 5)
Claim(s)	Lee discloses:
7	
	A method as recited in claim 5, wherein the method further comprises weighting each
	of the values in the query element based on a confidence measure of the word corresponding
	to said value. (p.3, ¶ 0025)
	{The confidence measure of a word is a result determined from the relevancy, e.g., the
	frequency of a term appears during search.}
Claim(s)	Lee discloses:
8	
	A method as recited in claim 1, further comprising applying the query element (e.g.,
	the request) to the plurality of items to identify one or more items (e.g., hottest golf book) from
	amongst the plurality of items (e.g., books from Amazon). (p.2, ¶ 0018)
Claim(s)	Lee discloses:
9	
	A method as recited in claim 8, wherein each of the items is a destination (e.g., a
	person's home phone) in a call routing system. (p.2, ¶ 0019; p.3, ¶ 0024)
Claim(s)	Lee discloses:
10	
	A method as recited in claim 9, wherein each of the items is a dataset (e.g., web page
	content) in an information retrieval system. (p.1, ¶ 0004; p.1, ¶ 0005, ll.1-4)
Claim(s)	Lee discloses:
11	
	A method as recited in claim 1, wherein the plurality of items (e.g., books from

	Amazon) are items of text data.
Claim(s)	Lee discloses:
	A method of identifying one or more items from amongst a plurality of items in response to a spoken utterance, the method comprising:
	using an automatic speech recognizer (Fig.1: <b>34</b> ) to recognize the utterance (Fig.1: <b>32</b> ), including generating a plurality of hypotheses (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon": p.2, ¶ 0018: Fig.3: <b>36</b> ) for the utterance, wherein each of the hypotheses includes one or more words (e.g., 'hottest', 'Amazon');
	generating a query element (e.g., a request "give me hottest golf book from Amazon": Fig.4: <b>80</b> ; p.2: ¶ 0021) for use in identifying one or more items (e.g., golf book) from amongst the plurality of items (e.g., books from Amazon), wherein the query element includes a set of values (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon": p.2, ¶ 0018) representing all of the plurality of hypotheses, each value (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon") corresponding to one of said words (e.g., 'hottest', 'Amazon'); and {The query element, representing a request, generates values, representing the two hypotheses.}
	weighting each of the values in the query element based on a confidence measure (e.g., recognition importance: p.2, ¶ 0017) of the hypothesis that includes the word corresponding to said value, wherein the confidence measure of each hypothesis is based on a rank (e.g., the best hypothesis "give me hottest golf book from Amazon" and the second best hypothesis "give them hottest gulf from Amazon") of the hypothesis among the plurality of hypotheses.  {Since the meanings of 'hottest' and 'golf' are constrained to be POPULARITY and BOOK respectively, the best hypothesis is "give me hottest golf book from Amazon". (p.2, ¶ 0021, II.14-21; p.3, ¶ 0023; see Fig.4 & 5)}
Claim(s)	Lee discloses:
	A method as recited in claim 13, further comprising weighting each of the values in

	the query element based on a confidence measure of the word corresponding to said value.
	(p.3, ¶ 0025)
	{The confidence measure of a word is a result determined from the relevancy, e.g., the
	frequency of a term appears during search.}
Claim(s)	Lee discloses:
15	
	A method as recited in claim 13, further comprising applying the query element (e.g.,
	the request) to the plurality of items to identify one or more items (e.g., hottest golf book) from
	amongst the plurality of items (e.g., books from Amazon). (p.2, ¶ 0018)
Claim(s)	Lee discloses:
16	
	A method as recited in claim 15, wherein each of the items is a destination (e.g., a
	person's home phone) in a call routing system. (p.2, ¶ 0019; p.3, ¶ 0024)
Claim(s)	Lee discloses:
17	
	A method as recited in claim 15, wherein each of the items is a dataset (e.g., web
	page content) in a database (e.g. web database: Fig.3: 74, 76, 78) in an information retrieval
	system. (p.1, ¶ 0004; p.1, ¶ 0005, II.1-4)
Claim(s)	Lee discloses:
18	
	A method as recited in claim 13, wherein the plurality of items (e.g., books from
	Amazon) are items of text data.
Claim(s)	Lee discloses:
20	
	An apparatus (Fig.3) for identifying one or more items from amongst a plurality of
	items in response to a spoken utterance, the apparatus comprising:
	means for using an automatic speech recognizer (Fig.1: 34) to recognize the
	utterance (Fig.1: 32), including generating a plurality of hypotheses (e.g., two of N-best
	hypotheses: "give me hottest golf book from Amazon", "give them hottest gulf from Amazon",

	p.2, ¶ 0018; Fig.3: <b>36</b> ) for the utterance; and
	means for generating a set of values (e.g., "give me hottest golf book from Amazon",
	"give them hottest gulf from Amazon": p.2, ¶ 0018) representing a query (e.g., a request: p.1,
	¶ 0014), for use in identifying one or more items (e.g., golf book) from amongst the plurality of
	items (e.g., books from Amazon), the set of values including values representing a best
	hypothesis (e.g., "give me hottest golf book from Amazon") and a hypothesis (e.g., "give them
	hottest gulf from Amazon") other than the best hypothesis from the plurality of hypotheses.
Claim(s)	Lee discloses:
21	
	An apparatus as recited in claim 20, wherein the set of values includes values (e.g.,
	"give me hottest golf book from Amazon", "give them hottest gulf from Amazon") representing
	all of the plurality of hypotheses (e.g., "give me hottest golf book from Amazon", "give them
	hottest gulf from Amazon"). (p.2, ¶ 0018)
Claim (a)	
Claim(s) 22	Lee discloses:
22	An apparatus as resited in claim 20 wherein each of the horsethese includes and a
	An apparatus as recited in claim 20, wherein each of the hypotheses includes one or
	more words (e.g., 'hottest', 'Amazon'), wherein each value (e.g., "give me hottest golf book
	from Amazon", "give them hottest gulf from Amazon": p.2, ¶ 0018) of the set of values
	corresponds to one of said words (e.g., 'hottest', 'Amazon'), and wherein the apparatus
	further comprises means for weighting each of the values based on a confidence measure
	(e.g., recognition importance: p.2, ¶ 0017) of the hypothesis that includes the word
	corresponding to said value.
Claim(s)	Lee discloses:
23	
	An apparatus as recited in claim 22, wherein the confidence measure of each
	hypothesis is based on a rank (e.g., the best hypothesis "give me hottest golf book from
	Amazon" and the second best hypothesis "give them hottest gulf from Amazon") of the
	hypothesis among the plurality of hypotheses. (p.2, ¶ 0021, II.14-21; p.3, ¶ 0023; see Fig.4 &
	5)
Claire ( )	
Claim(s)	Lee discloses:

24	
	An apparatus as recited in claim 22, wherein the apparatus further comprises means
	for weighting each of the values in the set of values based on a confidence measure of the
	word corresponding to said value. (p.3, ¶ 0025)
	{The confidence measure of a word is a result determined from the relevancy, e.g., the
	frequency of a term appears during search.}
Claim(s)	Lee discloses:
25	
	An apparatus as recited in claim 20, further comprising means for applying the set of
	values (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon":
	p.2, ¶ 0018) to the plurality of items (e.g., books from Amazon) to identify one or more items
	(e.g., golf book) from amongst the plurality of items.
Claim(s)	Lee discloses:
26	
	An apparatus as recited in claim 25, wherein the apparatus is part of a call routing
	system, such that each of the plurality of items is a call destination (e.g., a person's home
	phone). (p.2, ¶ 0019; p.3, ¶ 0024)
Claim(s)	Lee discloses:
27	
	An apparatus as recited in claim 25, wherein the apparatus is part of an information
	retrieval system, such that each of the plurality of items is a dataset (e.g., web page content)
	in a database (e.g. web database: Fig.3: <b>74</b> , <b>76</b> , <b>78</b> ) of the information retrieval system. (p.1,
	¶ 0004; p.1, ¶ 0005, II.1-4)
Claim(s)	Lee discloses:
28	
	An apparatus as recited in claim 20, wherein the plurality of items (e.g., books from
	Amazon) are items of text data.
Claim(s)	Lee discloses:
30	
	An information retrieval system (Fig.1) comprising:

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a database; (Fig.1: 44)

an information retrieval engine (Fig.1: 38) to identify and retrieve one or more items (e.g., golf book) from the database which satisfy a text-based query (e.g., a request: p.1, ¶ 0014; Fig.1: 36)

an automatic speech recognizer (Fig.1: **34**) to generate the query in response to an utterance of a user (Fig.1: **32**), the automatic speech recognizer configured to:

generate a plurality of hypotheses (e.g., two of N-best hypotheses: "give me hottest golf book from Amazon", "give them hottest gulf from Amazon", p.2, ¶ 0018; Fig.3: **36**) for the utterance; and

generate a query element (e.g., "give me hottest golf book from Amazon": Fig.4: **80**) representing the query (e.g., the request), the query element including values (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon") representing two or more hypotheses of the plurality of hypotheses.

{The query element, representing a request, generates values, representing the two hypotheses.}

# Claim(s)

#### Lee discloses:

31

An information retrieval system as recited in claim 30, wherein the query element includes values (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon") representing all of the plurality of hypotheses (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon"). (p.2, ¶ 0018)

# Claim(s)

### Lee discloses:

32

An information retrieval system as recited in claim 31, wherein each of the hypotheses (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon") includes one or more words (e.g., 'hottest', 'Amazon'), wherein each value in the query element corresponds to one of said words, and wherein the method further comprises weighting each of the values in the query element based on a confidence measure (e.g.,

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	recognition importance: p.2, ¶ 0017) of the hypothesis that includes the corresponding word.
Claim(s)	Lee discloses:
33	
	An information retrieval system as recited in claim 32, wherein the confidence
	measure of each hypothesis is based on a rank (e.g., the best hypothesis "give me hottest
	golf book from Amazon" and the second best hypothesis "give them hottest gulf from
	Amazon") of the hypothesis among the plurality of hypotheses. (p.2, ¶ 0021, II.14-21; p.3, ¶
	0023; see Fig.4 & 5)
Claim(s)	Lee discloses:
34	
	An information retrieval system as recited in claim 32, wherein the automatic speech
	recognizer is further configured to weight each of the values in the query element based on a
	confidence measure of the word corresponding to said value. (p.3, ¶ 0025)
	{The confidence measure of a word is a result determined from the relevancy, e.g., the
	frequency of a term appears during search.}
Claim(s)	Lee discloses:
35	An information retrieval system as recited in claim 30, wherein the information
	retrieval engine uses the query to retrieve text data (e.g., books from Amazon) satisfying the
	query from the database.
	query nom the database.
Claim(s)	Lee discloses:
37	
	A call routing system (Fig.1) comprising:
	a database; (Fig.1: <b>44</b> )
	a call routing engine (Fig.1: 38) to identify and provide a caller with access to a call
	destination (e.g., a person's home phone) which satisfies a text-based query; (p.2, ¶ 0019;
	p.3, ¶ 0024) and
	an automatic speech recognizer (Fig.1: 34) to generate the query in response to an

	utterance of the caller, the automatic speech recognizer configured to:
	generate a plurality of hypotheses (e.g., two of N-best hypotheses: "give me hottest golf book from Amazon", "give them hottest gulf from Amazon", p.2, ¶ 0018; Fig.3: 36) for the utterance; and
	generate a query element (e.g., "give me hottest golf book from Amazon":  Fig.4: <b>80</b> ) representing the query (e.g., the request), the query element including values (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon") representing two or more hypotheses of the plurality of hypotheses.  [The query element, representing a request, generates values, representing the two hypotheses.]
Claim(s)	Lee discloses:
38	A call routing system as recited in claim 37, wherein the query element includes values (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon") representing all of the plurality of hypotheses (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon"). (p.2, ¶ 0018)
Claim(s)	Lee discloses:
39	A call routing system as recited in claim 38, wherein each of the hypotheses (e.g., "give me hottest golf book from Amazon", "give them hottest gulf from Amazon") includes one or more words (e.g., 'hottest', 'Amazon'), wherein each value in the query element corresponds to one of said words, and wherein the method further comprises weighting each of the values in the query element based on a confidence measure (e.g., recognition importance: p.2, ¶ 0017) of the hypothesis that includes the corresponding word.
Claim(s)	Lee discloses:
40	
	A call routing system as recited in claim 39, wherein the confidence measure of each hypothesis is based on a rank (e.g., the best hypothesis "give me hottest golf book from Amazon" and the second best hypothesis "give them hottest gulf from Amazon") of the hypothesis among the plurality of hypotheses. (p.2, ¶ 0021, II.14-21; p.3, ¶ 0023; see Fig.4 &

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	5)
Claim(s)	Lee discloses:
41	
	A call routing system as recited in claim 39, wherein the automatic speech recognizer
	is further configured to weight each of the values in the query element based on a confidence
	measure of the word corresponding to said value. (p.3, ¶ 0025)
	{The confidence measure of a word is a result determined from the relevancy, e.g., the
	frequency of a term appears during search.}
Claim(s)	Lee discloses:
42	
	A call routing system as recited in claim 37, wherein the information retrieval engine
	uses the query to retrieve text data (e.g., books from Amazon) satisfying the query from the
	database.

## Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. C	laims 12, 19, 29, 36, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Lee.	
Ole in (a)	
Claim(s)	Lee does not show:
12	
	A method as recited in claim 1, wherein the plurality of items are items of audio data.

	It would have been obvious to a person of ordinary skill in that art at the time the invention was made to modify the method of Lee to include items of audio data such as music
	because music and songs are popular requested items from users in addition to books.
Claim(s)	Lee does not show:
19	A method as recited in claim 13, wherein the plurality of items are items of audio data.
	It would have been obvious to a person of ordinary skill in that art at the time the
	invention was made to modify the method of Lee to include items of audio data such as music
	because music and songs are popular requested items from users in addition to books.
Claim(s)	Lee does not show:
29	
	An apparatus as recited in claim 20, wherein the plurality of items are items of audio
	data.
	It would have been obvious to a person of ordinary skill in that art at the time the
	invention was made to modify the apparatus of Lee to include items of audio data such as
	music because music and songs are popular requested items from users in addition to books.
Claim(s)	Lee does not show:
36	
	An information retrieval system as recited in claim 30, wherein the information
	retrieval engine uses the query to retrieve audio data satisfying the query from the database.
	It would have been obvious to a person of ordinary skill in that art at the time the
	invention was made to modify the information retrieval system of Lee to include the retrieval
	of items of audio data such as music because music and songs are popular requested items
	from users in addition to books.
Claim(s)	Lee does not show:
43	
	A call routing system as recited in claim 37, wherein the information retrieval engine

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uses the query to retrieve audio data satisfying the query from the database.

It would have been obvious to a person of ordinary skill in that art at the time the invention was made to modify the call routing system of Lee to include the retrieval of items of audio data such as music because music and songs are popular requested items from users in addition to books.

#### Conclusion

- 5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- U.S. Patent Documents:

[1] 2002/0087309	07/2002	Lee et al.
[2] 6,415,257	07/2002	Junqua et al.
[3] 6,519,562	02/2003	Phillips et al.
[4] 6,269,153	07/2001	Carpenter et al.
[5] 5,675,707	10/1997	Gorin et al.
[6] 2002/0116174	08/2002	Lee et al.
[7] 6,418,431	07/2002	Mahajan et al.
[8] 2002/0133341	09/2002	Gillick et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Lao whose telephone number is 703-305-8955.

The examiner can normally be reached on M-F, 8:30am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tim Lao Examiner Art Unit 2655

TL 06/25/04

> W. R. YOUNG DRIMARY EXAMINER